

MGM CityCenter Uses Tech To Wow Guests

At the biggest new development in Las Vegas, a guest room automation solution from Control4 leverages a gigabit fiber network to create compelling guest experiences and cut operating expenses.

By Masha Zager ■ *Broadband Properties*

Imagine that you've just arrived at a hotel. As you walk into your room, a hotel bellhop greets you by name, switches on the lights, puts some music on the stereo and draws the curtains to reveal a spectacular view. After you finish admiring the view, the bellhop asks you for precise instructions about how you would like the room to be lit, heated and shaded; what your tastes are in music and video; what time you would like to wake up – and, by the way, can we send up anything for your dinner?

Now imagine that all these things happen as if by magic, with no hotel employee in sight. (When was the last time you saw a hotel bellhop, anyway?)

Guests at the ARIA Resort and Casino and the Mandarin Oriental, the two hotels in Las Vegas' new CityCenter, are treated to this kind of personalized automation based on technology from Control4. CityCenter, a joint venture between MGM Resorts International and Infinity World Development Corp. (a company owned by the government of Dubai), is a 67-acre complex on the Las Vegas Strip that is still under development. Completed, it will include hotels, casinos, apartments, retail space and cultural and entertainment venues. Managed by MGM Resorts Interna-



tional, CityCenter is billed as the world's largest private green development, with all its buildings receiving LEED gold certification.

CITYCENTER'S GUEST-ROOM TECH

In CityCenter hotels, guests can use remote controls and bedside panels to control their environments and save their chosen settings. They can select scenes such as "good night," which turns off the lights and TV, shuts the curtains and turns on privacy notification. Wake-up scenes awaken guests in

a "subtle and more soothing way" by gradually changing temperature, lighting, curtain opening and music volume. Televisions in guest rooms also serve as giant computer monitors; as screens for game consoles, cameras and MP3 players; and as communications centers that display everything from voice mails to package deliveries.

Because all the devices in the room communicate automatically with the hotel system, guests don't have to complain about the remote's needing new batteries or the mini bar's needing replenishment. The system does the complaining for them before the guests become aware that anything is lacking.

Of course, it goes without saying that CityCenter guests have access to plenty

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of wireless Internet bandwidth and to many high-definition TV channels.

HOME AUTOMATION MOVES UP TO THE HOTEL

Salt Lake City–based Control4 first made its name designing home-automation solutions – especially entertainment-system controls – for single-family homes. Antonio DiMilia, vice president for hospitality, says, “When we entered the space in 2003 ... all the solutions were targeted at the very top of the market. We wanted to address the needs of a broader market.” To make home automation more widely accessible, Control4 developed an open platform that integrated easily with third-party products. In addition, it based its technology on wireless standards because installing wireless sensors was both less expensive than wiring every device and more practical for retrofitting existing homes.

Control4 entered the hospitality market at the invitation of MGM Resorts when that company was planning CityCenter and trying to design an experience that guests would find compelling. The CIO, who was familiar with Control4’s technology, hoped it would re-create the excitement he remembered from childhood visits to hotels that seemed futuristic.

To port its single-family-home offering to CityCenter, where the ARIA alone has more than 4,000 rooms, Control4 added a management layer to its core technology. “It’s the same core technology that we offer in other verticals,” DiMilia explains, “but it’s more robust and easier to manage – which is critical, because in a hotel environment, you need to be able to look at each system, monitor each room and make changes on the fly, remotely, to one or many rooms.”

The resulting solution not only provides a “Wow!” experience for guests but also helps the hotels reduce energy costs and improve their operations (and, of course, call attention to their green status). Probably the biggest saving comes from being able to easily change climate-control settings, close the shades and turn off the lights in unoccupied rooms.

A hotel can also control these systems centrally in rooms that are occupied; however, as DiMilia puts it, “There is always a certain compromise between ensuring comfort for the guests and applying the greatest savings.” In the ARIA, the sheer curtains are closed automatically at room turndown time. Other possibilities include daylight harvesting (automatically turning off room lights when natural light reaches a certain level) and dim-

ming the lights to 80 percent of their maximum wattage (which is nearly undetectable and doubles the lifespans of the bulbs).

CITYCENTER’S GIGABIT NETWORK

CityCenter’s room-automation technology is supported by an extremely robust IP infrastructure. MGM Resorts ran fiber to every guest room with 1 Gbps bandwidth and put in a Cisco switch and access point to deliver Wi-Fi. “This is probably the single largest private IP network anywhere,” DiMilia says, “and also the single largest distributed antenna system – the list goes on.” The network was designed to minimize the number of communications closets on guest floors, leaving more space for guest rooms. CityCenter distributes voice, video and data over the IP network, and its internal building systems use the same network for communications. MGM Resorts expects the infrastructure to have plenty of capacity for additional applications for many years to come.

In the CityCenter room-automation system, as in Control4’s residential solutions, ZigBee sensors attached to devices such as light switches, dimmers and keypads communicate wirelessly with a Control4 control unit in each guest room. The control units, in turn, communicate over the fiber network with a centralized server, which enables building staff to manage the entire system remotely. (Typically, a Control4 server would be rack-mounted in a hotel’s main distribution frame, along with a PBX, a video server, a server for the property management system and similar equipment.)

A MULTIFAMILY HOUSING SOLUTION

After launching its technology in CityCenter and deploying it in several other hotels, Control4 now has more than 10,000 guest rooms deployed. The hospitality solution continues to evolve based on feedback from clients. DiMilia estimates that, depending on a hotel’s location, its energy efficiency and how it implements the Control4 solution, the solution should have a payback period of between two and five years. He explains, “If they focus more on guest-facing technology, the more devices they install, the higher the cost and the longer the payback period will be. If they focus on energy management, they could have a payback period of less than two years.”

Control4 has also generalized the hospitality solution for use in other types of multifamily communities, such as condominiums and traditional neighborhood developments, where developers want to use technology for both lifestyle enhancement and sustainability. The generalized MDU solution also supports concierge-type services; for example, a resident can enter a request to have her car waiting at the front door when she comes downstairs or can put in an order for dry cleaning to be picked up. Like all Control4 solutions, the solution is modular, so owners can start small – say, with lighting controls – and add more features as they go on.

DiMilia says, “There are a lot of similarities, and some differences, between what a hotel requires and what a typical multifamily would require. In a hotel, you have different people staying in the same guest room, so you’re looking at a simpler solution. But the same concept applies, and the same needs for sustainability and technology are there.” ■